

Grade 4 Super Screens Math Task

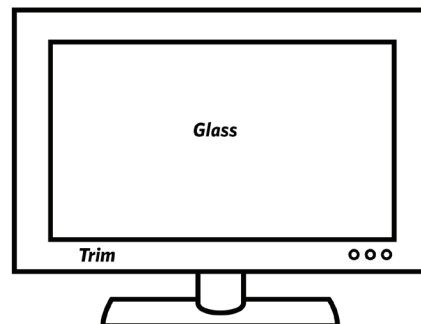
2015-2016 NYC Baseline Performance Tasks

Instructions

- Tasks may not be shared with students prior to administration.
- Fall baseline tasks may be administered and scored by the regular classroom teacher.
- Distribute one task booklet to each student.
- All student work should be completed in the task booklet. All student work in the task booklet should be scored, regardless of whether the student completed or attempted every question.
- Students should have 90 minutes to complete the task, not including the distribution and collection of materials.
- Depending on school scheduling, administration may occur over 1-2 days. Administration conditions (i.e., the amount of time students have to complete the task, etc.) should be consistent across all classrooms in the school administering the above-named NYC Performance Task.
- Students should receive all accommodations normally provided for a class or state test.
- For complete administration information, see the Baseline Assessment Administration Handbook.

Super Screens

Yumiko and Lucia have just started a new business called the Super Screen Company. They have invented a new kind of glass and a special metallic trim to go around the edge of the glass. The glass will be used for rectangular screens on video game consoles and flat screen televisions. Yumiko and Lucia are thinking about the different size screens they can make and what they should charge.



Lucia has started a table with some of the sizes of screens, but it is incomplete.

Super Screen Sizes

Length	Width	Area	Perimeter
2 inches	2 inches	4 square inches	8 inches
		72 square inches	44 inches
9 inches		126 square inches	
3 inches	8 inches	24 square inches	22 inches

1 Compare the 2-inch-by-2-inch screen and the 3-inch-by-8-inch screen:

How much longer is the trim around the larger screen? _____ inches

How many times larger is the area of the glass for the larger screen? _____ times larger

Name: _____ Date: _____

Super Screen Sizes

Length	Width	Area	Perimeter
2 inches	2 inches	4 square inches	8 inches
		72 square inches	44 inches
9 inches		126 square inches	
3 inches	8 inches	24 square inches	22 inches

2 What is the width of the 9-inch-long screen? _____ inches

Show your work.

3 What is the length and width of the screen with the 72-square-inch area?

Show your work.

Name: _____ Date: _____

- 4 What is the area, in square inches, of a screen that is 3 feet long and 42 inches wide?

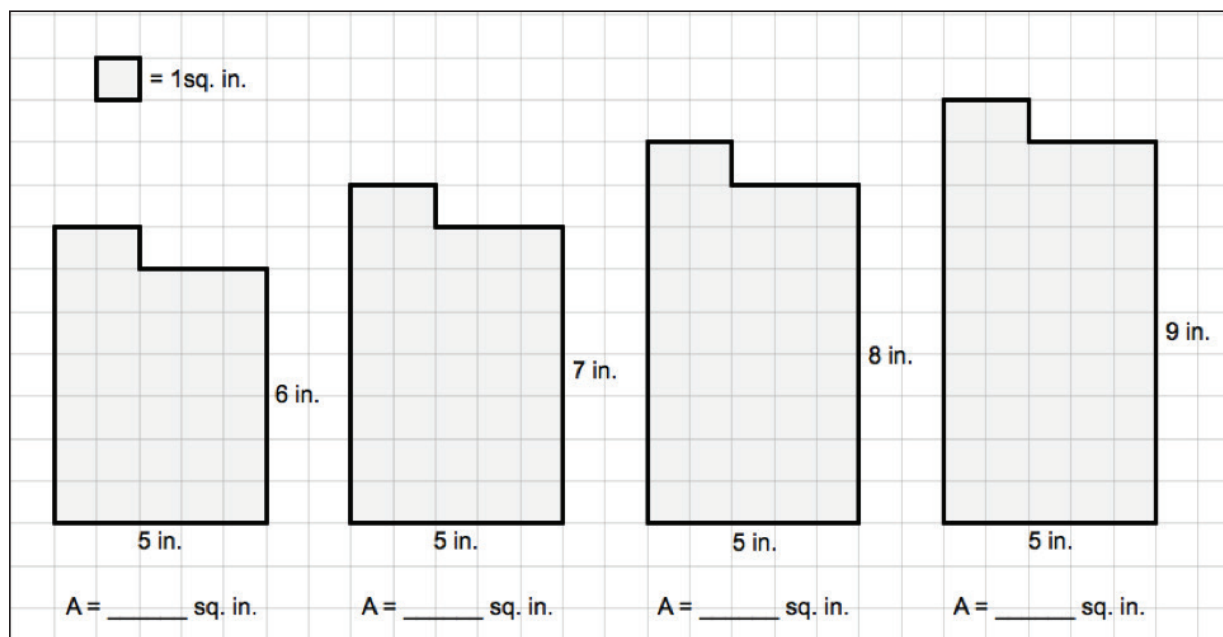
_____ square inches

Show your work.

Name: _____ Date: _____

Yumiko is making special 5-inch wide screens. The screens' area will be rectangular, with a 2-square-inch area added for display. Yumiko wants to make an organized chart that can later be used to find the cost of the screen and the trim.

5a Find the area of each screen for Yumiko so she can make an organized table.



5b If they made a 5-inch-wide by 23-inch-long screen like those above, and Yumiko calculated the area, which digit would be in the ones place? _____

5c Identify the pattern and explain how you know without calculating the actual area.

Name: _____ **Date:** _____

- 6** The area of the 5-inch-by-5-inch screen with the additional 2 square inches of area is 27 square inches and its perimeter is 22 inches. The glass to make the screen costs 10 cents for each square inch, and the trim costs 5 cents for each inch.

How much is the total cost for a 5-inch-by-5-inch screen including glass and trim? _____

Show your work.

Name: _____ **Date:** _____

- 7 Lucia has 310 square inches of glass. She would like to use the glass to make screens in which each screen has an area of 8-square-inches. She thinks she can make exactly 35 screens. However, Lucia is incorrect. Use estimation to explain why Lucia's thinking is incorrect.**

This image shows a blank sheet of white paper with horizontal ruling lines. The lines are evenly spaced and extend across the width of the page. There are no margins, text, or other markings on the paper.